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Original Communications.

ANÆSTHESIA OF THE RETINA.

By O. F. WADSWORTH, M.D. Read before the Boston Society for Medical Observation.

UNDER the title *Anæsthesia of the Retina*, Graefe, in 1865,* called attention to a class of cases of disturbance of vision which may, perhaps, from their clinical history, in default of more exact knowledge of them, be properly placed under the general head of the so-called hysterical affections. The title may, at first sight, seem to be a misnomer, since an increased sensitiveness to light is usually one of the prominent symptoms, and may even amount to intense photophobia; it may, on the other hand, however, be wholly absent, while a marked anæsthesia of a greater or less portion of the retina is invariably found.

But little is to be found on the subject in the more recent text-books on ophthalmology; some do not mention it at all; Schweigger† gives the best account of it; Soelberg Wells‡ describes it under the head of hyperæsthesia of the retina, from which it is distinct, and combines the symptoms of the two affections, but does not allude to those cases in which hyperæsthesia is absent; Stellwag§ devotes but a few lines to it.

The affection is infrequent, and the chain of symptoms which it presents, therefore, liable to be in part overlooked, and its nature misinterpreted. It is almost invariably readily amenable to proper treatment, and it is of the more importance that it should be early recognized, since, aside from the general advantage of a good prognosis from the first, a cheerful frame of mind on the part of the patient exercises here a specially favorable influence toward

recovery, while without any or with injudicious treatment its course may be indefinitely prolonged.

The main symptoms of the affection are a diminution of central vision, often attended with increased sensibility to light, and a narrowing of the visual field. The central vision may be totally abolished, but it is generally comparatively little affected, seldom sinking below $\frac{1}{2}$ or $\frac{1}{3}$; on the other hand the contraction of the visual field is always strongly pronounced, usually more or less nearly concentric, but sometimes irregular, and presenting considerable variations from time to time. Coincident with these threatening symptoms we find, however, that phosphenes are readily excited by slight pressure on those parts of the retina which are completely insensible to the stimulus of light, and an ophthalmoscopic examination shows the media clear, and an optic nerve, retina and choroid of perfectly normal appearance, even when the disturbance of vision has already existed a long time. Another peculiarity of diagnostic importance is that both the acuteness of vision and the size of the field increase, or at least do not diminish, when tested by means of weakened illumination or when colored glasses are placed before the eyes. Photophobia, as already stated, may be present in high degree, and then tends to mask the other symptoms, or may be wanting, and it is in general proportional to the nervous excitability or hysterical disposition of the patient. Beside the symptoms noted, there is also in many cases a spasmodic action of some of the facial muscles, excited or increased by exposure to bright light, or localized cutaneous hyperæsthesia or anæsthesia of varied situation. Pain in the eyes, headache, neuralgia, and even perversion of the moral as well as physical faculties have also been observed, but are only rare accompaniments of the usual symptoms.

The disease generally occurs in women and children, especially such as are of a nervous or excitable temperament, less frequently in men; and it is worthy of

* *Klin. Monatsbl. f. Augenheilk.*, 1865, p. 261. Translation in this Journal.

† *Handbuch d. speciel. Augenheilkunde*. Berlin, '71.

‡ *Treatise on the Diseases of the Eye*.

§ *Treatise on the Diseases of the Eye*. Translation.

note that the reverse is the case with all other amblyopic affections, in them men furnishing the majority of patients. The attack is usually, but not invariably, sudden, and as a rule both eyes are affected, though it may be in different degree. In rare instances, there seems to be no predisposing or exciting moment, the patient enjoying full health up to the time of the attack. More often it comes on during convalescence from disease or injury, while frequently a fright or other sudden mental excitement, or a slight blow on the eye or superficial injury furnishes the immediate exciting cause. In the latter case, the injured eye is generally alone affected.

The treatment should be generally supporting, tonics, fresh air, rest of the eyes and exclusion of bright light. The preparations of zinc, especially the lactate, have been highly recommended by Graefe; cases have been reported, also, in which the subcutaneous injection of strychnia over the temples apparently produced a rapidly beneficial effect. The importance of preserving a cheerful frame of mind in the patient has been already alluded to, and Graefe states that he has seen decided relapses in patients who were previously doing well when from any cause a depression of spirits had been produced. As the following case presents a good example of the affection, I give it in some detail.

Nov. 21st, 1871.—A slightly-built, pale and anæmic-looking boy of 9 years, presented himself at the dispensary, complaining of imperfect vision and dazzling, which had existed for two weeks. He stated that, while at school and looking at the blackboard, he felt a sudden sensation of dazzling, causing him to spasmodically close his eyes. He leaned his head forward on his desk for a moment or two, and on raising it again found he could not see distinctly. His condition had remained unchanged till I saw him.

As he sat facing the window, there was a slight spasmodic twitching of the orbicularis muscle on both sides; not, however, continuous. The external appearance of the eyes presented nothing else abnormal. The central vision was but little below the normal, but a rough examination of the visual field discovered a marked concentric narrowing in both eyes. The ophthalmoscope showed a fundus of perfectly normal appearance in all parts and alike in the two eyes.

A more careful examination, made a few hours later, gave the following particulars. The spasmodic action of the orbicularis is

most marked when the patient is exposed to bright light or when he tries to read, but is never very great; it occurs also occasionally in less degree when he is seated with his back to the window in a moderate light. The pupils are of normal size, and the irides—of normal appearance—react readily to the stimulus of light. With moderate light

Right eye, Hm = $\frac{1}{4}$, V = $\frac{1}{2}$ nearly.

Left eye, Hm = $\frac{1}{8}$, V = $\frac{1}{2}$ nearly.

Together, V same as with either eye alone.

With diminished light, or on holding a pretty-dark blue glass before the eyes, the vision rose to $\frac{1}{2}$ nearly. This amount of vision corresponded very closely to that of a normal eye under the same conditions.

$$\text{Accommodation} = \frac{1}{3\frac{1}{2}}$$

$$\text{Relative A at } 12'' \left\{ \begin{array}{l} +13 \\ -10 \end{array} \right.$$

The field of vision, carefully mapped out on a blackboard at a distance of 1' from the eye, showed a strong concentric narrowing, that of the right eye being $6\frac{1}{2}$ " in the vertical, $6\frac{1}{2}$ " in the horizontal diameter; of the left eye, $7\frac{1}{2}$ " in the vertical, $7\frac{1}{2}$ " in the horizontal diameter.

Diminished illumination caused no appreciable change in the size of the field.

Colors were easily distinguished. Phosphores were readily produced by slight pressure on parts of the retina far outside of the district still sensitive to light. No increased or diminished cutaneous sensibility anywhere to be discovered.

The boy was quite intelligent and appeared rather to enjoy the examination, but it was noticed, both at this and several subsequent visits, that the eyes soon became tired while looking at the black-board, even with very moderate light. As his condition improved, however, this rapid tiring of the eyes disappeared. The twitching of the orbicularis also passed off in a few days.

A careful inquiry into his previous history, both of himself and his parents, failed to discover any immediate exciting cause for his trouble. He was always bright, cheerful and active, but never robust, and his health was easily disturbed. During the last summer he had had a cough for some weeks, and since, there was occasional slight pain and lameness across abdomen, and he was easily tired by going up stairs quickly. Three months before I saw him, he broke his left arm near the elbow by a fall down stairs, and, as he says, it was re-fractured a month later by a surgeon on

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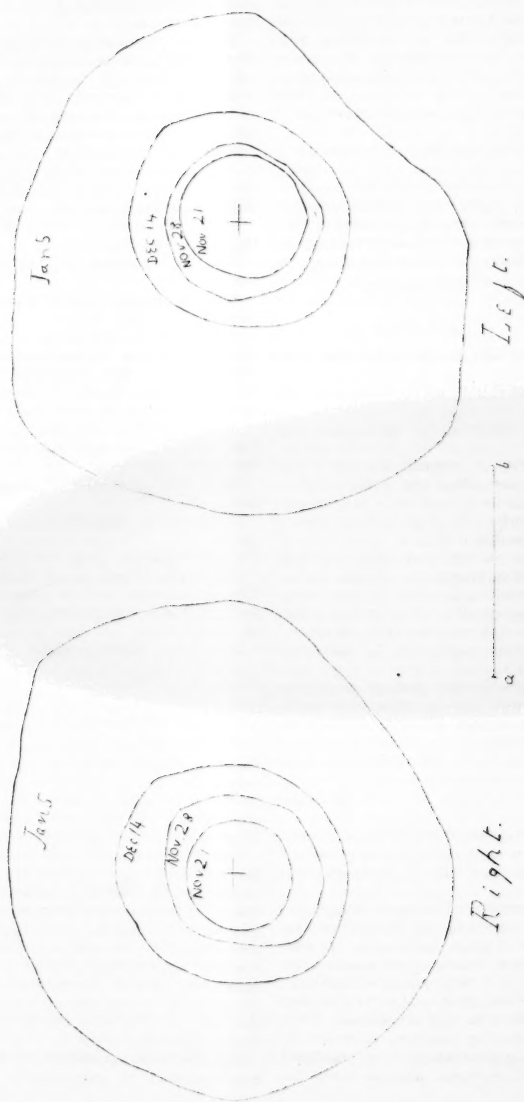
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This figure represents the size and form of the field of vision on four different days. The size of the figure corresponds to a distance from the eye of 14". (Line a b.) Vol. ix., p. 247.

account of bad union. He wore splints five weeks longer, leaving them off about a week before the trouble in vision came on. He considered himself at this time to be in his usual health. He was advised to wear blue glasses, not to attempt to use the eyes, and to avoid bright light as much as was consistent with a maximum of fresh air. Lactate of zinc was prescribed, gr. i. thrice daily.

The following day, Nov. 22d, was cloudy and dark, and the vision had risen to $\frac{1}{8}$. The field, too, showed a decided improvement, being, right, $8\frac{1}{2}$ " vertical, and 8" horizontal diameter; left, $9\frac{1}{2}$ " vertical, $8\frac{1}{2}$ " horizontal diameter. The size remained the same when the room was darkened and the only illumination was that from an ordinary circular gas-burner, placed 14 feet from the blackboard, the flame $\frac{3}{4}$ " high.

Nov. 23d.—The day bright and the field less than on 22d, though still larger than on 21st.

Right, 8" vertical, $8\frac{1}{2}$ " horizontal diameter.

Left, $7\frac{3}{4}$ " vertical, $8\frac{1}{2}$ " horizontal diameter.

It is worthy of remark that up to this time he had not taken the lactate of zinc, there being none on hand at the dispensary, and he had only obtained the blue glasses shortly before this visit.

On this day, the effect of glasses of various colors was observed. With a red or yellow glass before the eye, the field underwent no change; with green or blue glass, as when the room was partially darkened, it seemed a trifle larger, but the difference was very slight.

Nov. 28th.—To-day patient begins to take the lactate, having taken valerianate of zinc since the 23d. First, to-day, is there a decided increase in the size of the field on diminishing the light. With moderate light and blue glass the field is—

Right, $9\frac{1}{2}$ " vertical, $8\frac{1}{2}$ " horizontal diameter.

Left, $9\frac{1}{4}$ " vertical, 9" horizontal diameter.

Room much darkened and blue glass—

Right, $10\frac{1}{2}$ " vertical, $8\frac{3}{4}$ " horizontal diameter.

Left, $9\frac{1}{2}$ " vertical, $9\frac{1}{2}$ " horizontal diameter.

Dec. 7th.—The field has slowly but steadily enlarged, and the increase in size with diminished light become more marked. At 1 $\frac{1}{2}$ P.M., the field was measured carefully; then $\frac{1}{16}$ gr. of strychnine sulph. was injected subcutaneously over the left temple. Five, ten, and thirty-five minutes after the injection, the measurements were repeated. They showed a slight increase over the

measurements made before the injection, but the sky had in the meantime become somewhat cloudy, and the light was therefore a little less.

It was my intention to repeat the injection on the following day, but when the boy appeared, at 2, P.M., he stated that he had waked that morning with occipital headache and dizziness, and the headache still continued. The field showed a slight increase, but the day was cloudy. On account of the headache which the first injection produced and its apparent inefficiency, no farther injection was made.

Dec. 14th.—Field, right, $18\frac{1}{2}$ " vertical, $12\frac{1}{2}$ " horizontal diameter.

Left, $13\frac{1}{4}$ " vertical, $12\frac{1}{2}$ " horizontal diameter.

Considerably larger with diminished illumination.

On Dec. 18th, patient got cod-liver oil and iron, but this caused nausea and was soon omitted, and on the 28th, tincture of the chloride of iron was given, and the dose of the zinc increased to gr. iss.

Jan. 5th.—Field has steadily increased, the increase being much greater in the left eye on the outer side.

Right, $26\frac{1}{4}$ " vertical, $23\frac{3}{4}$ " horizontal diameter.

Left, $26\frac{1}{2}$ " vertical, $23\frac{3}{4}$ " horizontal diameter.

Zinc increased to gr. ij. three times daily.

Jan. 11th.—Field normal on both sides. The zinc has caused nausea the last day or two—omit zinc. May leave off blue glasses on cloudy days.

Jan. 17th.—Field normal;

$$V = \frac{1}{2}; A = \frac{1}{3\frac{1}{2}}$$

$$\text{Relative A at } 12^{\circ} \begin{cases} +12 \\ -10 \end{cases}$$

The fundus had been repeatedly examined during the treatment and no change was at any time observed. He was advised to refrain from much use of the eyes for a while longer, to continue the iron, and to leave off the blue glasses only gradually.

The suddenness of the onset, the age of the patient, the dazzling, the spasm of the orbicularis, the slight decrease of central vision, which immediately rose under blue glasses or on lessening the amount of light, the concentric narrowing of the field, with reaction to pressure (phosphenes) of the anæsthetic parts of the retina, and, finally, the perfectly normal appearance of the fundus, gave an array of symptoms completely typical of the disease.

The favorable influence of diminished light seemed to be very evident. The field

was decidedly larger on the second day of observation, which was dark and cloudy, than on the first and third, which were bright. During this time, too, the patient had taken no drug. Graefe advised that the patient should be kept for a few days in a dark room, and only gradually allowed more light, but the importance of this is in direct proportion to the photophobia. In this case, the photophobia was slight, and I considered that in the anæmic condition of the boy more harm than good would be likely to result from such confinement.

Two theories were advanced by Graefe to explain the phenomenon of a temporary anæsthesia of part of the retina. The one supposed a minute, perhaps molecular change in the nerve-substance, rendering it unfit to conduct the impressions received; the other, that an affection of the vaso-motor nerves existed, which changed the conditions for the supply of blood, either by allowing dilatation of the walls of the vessels, or in some other way. The latter he considered the more probable.

Neither of these theories appears satisfactory. The supposition, either of a minute change in the nerve-substance, or of a deviation from the normal supply of blood, does not readily explain the sudden and abruptly defined contractions of the field which occur, or the rapid variations in its size under the influence of different degrees of light. Against the second theory also speaks the fact that in several recorded cases, as in mine, it has been expressly noticed that no change in the size of the vessels could be perceived during the whole course of the treatment.

It has also been assumed that the trouble, whatever and however temporary it may be, is situated in some portion of the retina external to the nerve-fibre layer, since the appearance of phosphenes on pressure of parts of the retina insensible to light must show that the conducting power of the nerve-fibre layer still remains.

This opinion, too, seems to me not well-founded, for we can easily comprehend that the stimulus of pressure on the elements of the retina may give rise to a sensation when that of light will not, just as a motor nerve which has become insensible to mechanical violence may still respond to an electric current.

We can only say, therefore, that the nature of the disturbance remains as yet entirely hidden.

I append an abstract of such cases of the affection as I have been able to find record-

ed to illustrate the variety of symptoms it may present.

Graefe* gives the details of one case, and refers briefly to another. The first was a boy of 10 years, somewhat excitable, but always healthy. While walking in the country, a tree near him was struck by lightning, and he was greatly frightened. The next day, disturbance of vision of right eye and twitching of right side of face was noticed. Three weeks later, right vision $\frac{1}{2}$; great photophobia; field much narrowed, but enlarging slightly with diminished light or blue glass. Phosphenes over anæsthetic parts. Fundus normal. Left eye unaffected. Tempered light, zinc, iron. Recovery in four weeks.

The second was a boy of 8 years. After anæsthesia of peripheral parts of retina had continued some time, the photophobia one day increased, and the following day the sensitiveness of the periphery was entirely restored, while at the same time a large central scotoma appeared. The boy was delicate and excitable; the trouble occurred during convalescence from measles. Recovery under same treatment.

Haase† reports a case from the ophthalmic hospital at Wiesbaden. The patient was a girl of 17, who had suffered for more than two years from dazzling, headache, nausea, &c., and one year before had had chorea. Five months before, she was struck on the left eye by the cork of a seltzer-water bottle. She stated that, immediately after, she could only distinguish light and darkness with this eye, and this condition had continued unchanged. The left eye counted fingers imperfectly at 18"; field much contracted concentrically. Vision of right eye also slightly diminished, and field narrowed. Blue glasses increased the size of field a little, and phosphenes were readily excited in both eyes. There was a considerable degree of myopia, but, aside from slight changes to be referred to this, the fundus normal. Zinc, rest and dark room; later, iron. Recovery. Haase also gives, from the records of the hospital for 1862, the account of a case, the symptoms of which leave no doubt that it was of the same nature. It was not recognized, however. Active antiphlogistic treatment was adopted, and five months later, the patient remained in the same condition.

Schroeter‡ reports the case of a boy of 15, who had had severe typhoid a year before, but appeared to have entirely reco-

* Loc. cit.

† Monatsbl. f. Augenheilk., 1866, p. 251.

‡ Monatsbl. f. Augenheilk., 1867, p. 126.

vered. He received a superficial wound of right cornea, which healed in a few days, but vision meanwhile sank to $\frac{1}{25}$, and field became very much contracted. Vision and field decidedly increased under colored glass. Phosphenes present. Fundus presented nothing abnormal except slight enlargement of vessels; the enlargement of the vessels also existed in the other (sound) eye, though less. Rapidly improved under bandage of right eye, dark room, zinc; later, iron; but increased sensitiveness to light continued some weeks after vision and field were restored.

Dr. Alexander* relates a case under title of hyperæsthesia of retina. The patient, a man of 26, had suffered some months from intermittent attacks of cardialgia, to which, after a time, neuralgia of both trigemini, spasmodic action of facial muscles and photophobia were added. The pain yielded, finally, to arsenic, but photophobia continued. For some time before the neuralgia disappeared, the patient had noticed progressive diminution of vision. Vision much diminished, and field much contracted. Ophthalmoscopic examination difficult, on account of photophobia; media clear, optic nerve and vessels at their exit perfectly normal, but at outermost periphery of retina the vessels appeared as if covered by a veil, and were indistinctly seen. No inflammatory symptoms of choroid or retina present. The veiling of vessels at the extreme periphery Dr. A. considered due to venous hyperæmia. Recovery under exclusion of light by bandage, zinc and iron. In view of the confessed difficulty of examining the whole fundus, and the perfectly normal appearance of the vessels at and near the nerve, the correctness of the diagnosis of venous hyperæmia of the periphery seems doubtful. Certainly it is not very uncommon, on examination through a small pupil, to perceive a greyish shimmer and some indistinctness of the vessels at the equatorial parts of the fundus, which appearances, however, vanish on dilating the pupil by atropine.

Talko† reports the case of a stout, healthy soldier of 27, the left side of whose face was sprinkled with powder and sand by the discharge of a gun at a distance of four paces, which produced, also, a small burn or wound of the conjunctiva at edge of cornea, and a superficial burn of the cornea adjoining. Immediate loss of vision of this eye (patient perceived only bright lamp-light). Fundus perfectly normal, and re-

mained so. Slight iritis came on opposite the injury of cornea, which passed off in a few days under atropine, bandage, &c. Phosphenes could be everywhere produced. Five days after injury, no improvement of vision. From this time, subcutaneous injections of strychnia in the neighborhood of the eye were made, and rapid recovery took place. During recovery, vision and size of field were increased by blue glass, and vision became normal sooner than the field.

Sichel fils* reports two cases. The first is given in great detail and presents many peculiarities. The patient, a merchant, was of delicate constitution. In 1856 he was affected with loss of sight of the right eye, accompanied at first by conjunctivitis. Atrophy of the optic nerve was diagnosed by a physician whom he consulted. He recovered after a year and a half. In 1861 the same thing occurred, and atrophy of the nerve was again diagnosed by two specialists, of whom Sichel père was one. Complete recovery in eight months. In 1868, when Sichel fils saw him, he was 28 years of age. Seventeen days before, he had had a sunstroke. The next day loss of consciousness for two hours, vomiting and purging. Two days later, severe headache, followed by progressive loss of sight of right eye. At the time of examination vision was totally abolished in the right eye, while in the left the field was much contracted and irregularly concentric in form, but vision was not much sunken. There was no photophobia then, though it appeared later. Phosphenes in both eyes. As regards the fundus, and in all other respects, the appearance of both eyes was normal. There was localized cutaneous anæsthesia and hyperæsthesia in different regions. In the course of the next few months many interesting phenomena were observed. The disturbances of cutaneous sensibility varied in extent, situation and degree. There was frequent intense neuralgia of the right side of head and face. Now, decubitus on right side, again, mastication was impossible on account of pain. The muscles of the right eye were at one time painful on motion, as if lamed; at another there was painful oscillation of this eye. Good appetite and digestion varied with anorexia and constipation. There were distressing nightmares and loss of sleep. Hysterical attacks, followed by short loss of consciousness, occurred. The sexual instincts were at one time completely

* Monatsbl. f. Augenheilk., 1868, p. 43.

† Ibid., p. 79.

* Annales d'Oculistique, vol. lxxiii. p. 201 et seq.

wanting, at another excessive and perverted. Perversion of all the sensorial faculties and failure of memory were also noted. The treatment was carefully directed in every way to improve the general health. Eight months from the commencement of the attack the patient's state had greatly improved; the field of the left eye was larger, and with the right he could distinguish objects the size of a pencil at a distance of 3'. He returned home to continue the treatment. Eight months later, he wrote that his general health was excellent, and he had resumed his occupations, but was still subject to nightmares, attended with violent headaches. The right eye had constantly improved, but its field of vision was still less than that of the left. The distinction of colors was more clear during dry and cold weather; in damp and foggy weather it was confused, and when snow lay on the ground, he was almost unable to distinguish objects about him, sometimes everything appearing blue, sometimes red.

Sichel's second case was a washerwoman of 26. She also had had two similar attacks before, at the age of 8 or 9, and again at 15, each necessitating non-use of the eyes for some months. The third attack followed a fright. Patient anæmic. Choraic movements of face, right arm and shoulder, when she was at all excited. Sense of touch and cutaneous sensibility everywhere slightly diminished. Gastralgia, headache and irregular menstruation. Reading impossible, but vision for distance only moderately diminished, and slightly increased by blue glasses. Field somewhat contracted. Phosphenes easily produced. Fundus normal. Zinc, tonics and blue glasses were ordered, and recovery was complete in four months. In this case an exception to the general rule existed, in that the field became normal before the vision was entirely restored.

Nagel* relates the case of a strong and healthy boy of 15, who, without discoverable cause, had had occasional pain in the left eye, accompanied by a gradual loss of sight in it for nine weeks. The vision was $\frac{1}{8}$, the field concentrically contracted. Phosphenes were present on pressure. Fundus normal. Right eye normal. Recovery in eight days, under the use of subcutaneous injections of strychnia.

H. Pagenstecher* reports the case of a girl of 12, who had been well till one year previous, at which time a lameness of left

leg appeared without perceivable cause, rendering the child incapable of walking. She recovered in four weeks, having taken strychnia the latter part of the time. In the course of the year the lameness occurred again five or six times, generally accompanied with headache, and once with decrease of vision, but passed off each time after a few days use of strychnia. When seen, the patient complained of gradual decrease of vision since four weeks, and almost continual headache the last eight days.

Vision much diminished, field much narrowed; both improved by colored glasses. This was the case in both eyes. Slight photophobia. Fundus normal. All colors readily distinguished. Gentle pressure on the closed lids caused intense flashes of color in left eye. Hyperæsthesia of whole left side of body, exactly limited to the median line, and on tapping or pinching any part of this side there was slight reflex spasm and appearance of colors before the left eye. The reflex excitement of colors was more marked on pressure of head or upper vertebrae, and accompanied by pain; below the ninth dorsal vertebra, and down whole lower extremity, appearance of color less, and no pain. Blue glasses were ordered, and for a few days there was some improvement; then a standstill. The constant current was now used, and it was found that, on placing one pole over the occiput or upper vertebrae, the same reflex appearances of color were produced as by pressure. After the medulla had been thus stimulated one half minute, the color-reaction ceased. An angina interrupted the treatment for a few days; then it was resumed, and after five daily applications of the constant current the vision and field were restored, and every abnormal symptom had disappeared. Pagenstecher considered that there was here some pathological process in the medulla.

A CASE OF SPASM OF THE ACCOMMODATION, WITH CONCENTRIC LIMITATION OF THE FIELD OF VISION; QUICK RECOVERY.

By RICHARD H. DERRY, M.D. New York, Ophthalmic Surgeon to the Demilt Dispensary; late Assistant of Professor von Graefe, in Berlin.

Miss B., 17 years of age, of pale and anæmic appearance, has suffered for a year past from pain in her eyes while reading or looking at her music. She had to hold her book very close to her face and even then the letters looked blurred and the "words ran

* Die Behandlung d. Amaurosen und Amblyopien mit Strychnin. Tübingen, 1871.

† Monatsbl. f. Augenheilk., 1871, p. 41.

into each other." She has complained, too, of a mist arising before her eyes when she looked at persons across the table.

Patient consulted me on the 3d of November, 1871. In both eyes there was myopia of $\frac{1}{10}$. Vision = $\frac{1}{3}$. There was a marked limitation of the range of accommodation, Jaeger No. 1 being read only between 2 and 4 $\frac{1}{2}$ inches. There was insufficiency of the internal recti in 10 inches of 12°. In 15 feet this insufficiency amounted to 7°, and for this distance the abduction was 12°. The ophthalmoscope showed the fundus of both eyes to be normal. After an instillation of atropine, an examination of the refraction revealed a hypermetropia of $\frac{1}{10}$ in each eye. On the right half of the face there was periodic twitching of separate muscles, particularly of the orbicularis; it was not marked, and lasted but a few seconds. There had been no intolerance of light from the outset. On the right cheek, over a region extending from the lower lid to the nose and back to a point immediately in front of the ear, there was diminished sensibility, and over this region a slight Faradaic current, which was distinctly felt on the other cheek, was not appreciated.

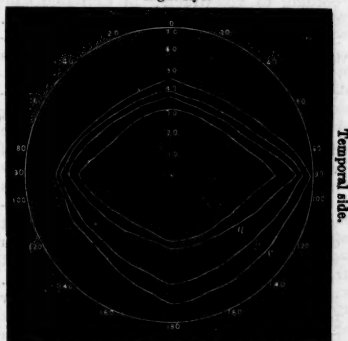
The case was regarded as one of spasm of the relative accommodation, and the patient was forbidden all use of the eyes, and directed to instil twice daily a solution of atropine. Blue tinted convex glasses, No. 60, were ordered to be worn constantly, and out-door exercise, with iron and quinine pills and cod-liver oil prescribed.

On the 23d of November, the eyes had had for twelve days entire rest. Last night, she had great pain in the eyes and over forehead and back of head. This pain was so great that she asked for ether and slept but little during the night. There was no change in the external or ophthalmoscopic appearances of the eyes. A careful examination of the visual fields was made, and it was found that she could nowhere eccentrically count fingers. By lamplight, this diminution in the diameter of the fields of vision was a little less pronounced, as was also the case when the patient looked by daylight through blue glasses. In every direction phosphenes could be produced.

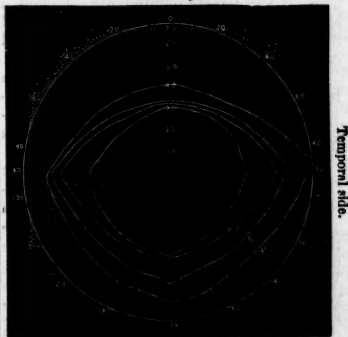
Having witnessed, at von Graefe's clinic, the good effect in these cases of the lactate of zinc, I ordered the patient this preparation in three-quarter-grain doses three times daily, and from day to day increased the amount until she received nearly five grains *per diem*.

The innermost of the concentric lines in the diagram represent the visual fields at the date of the commencement of this treatment. The gradual extension of the visual fields in every direction from time to time is made clear by the succeeding lines, *a*, *b*, and *c*. The fields of vision were mapped out by Förster's perimeter, the point of fixation being placed at 0° on the revolving arc and corresponding to the central point of the diagram. On the 30th of November, the vision of each was $\frac{20}{20}$, or normal. The range of accommodation was no longer limited.

Right Eye.



Left Eye.



On the 5th of December, convex 30 combined with prism 2° (base inwards) for each eye was ordered, and the patient directed to exercise her eyes systematically by reading.

On the 8th of December an extension of

the visual fields in every direction was confirmed, and this gain continued until December 31st, when there was no longer any limitation.

The patient still has insufficiency of the internal recti, although of a less degree, and for this she uses convex prismatic glasses, with which she is now able to read without discomfort more than three hours daily. With an improved general condition, the symptoms of muscular asthenopia will probably entirely disappear.

The partial anæsthesia of the peripheric zone of the retina in this case occurs, according to von Graefe,* in excitable children and nervous or hysterical women. Such forms of anæsthesia, with loss of cutaneous sensibility to pain, with twitchings of certain muscles, particularly affect individuals of excitable temperament, the subjects of anemia and those convalescing from severe disease. In our own case, the diminution of the central acuteness of vision was but slight, while there was marked concentric limitation of the fields of vision. This, as well as the sudden development of the affection and its short duration under treatment, was observed in von Graefe's cases. Of especial interest in reference to the prognosis in this case, was the retention of the phosphenes, for they could at all times be produced at points corresponding to the regions of the retina where there was no perception of light. This, as von Graefe pointed out, showed a loss of contraction between the rods and fibres of the retina, dependent on a local cause.

This disease almost always occurs in both eyes. The ophthalmoscope rarely reveals any change in the fundus, and the accompanying retinal hyperæsthesia is often very slight.

In the treatment of these cases, von Graefe placed his chief reliance on the internal administration of the preparations of zinc in increasing doses, following the method recommended by Jaksch in the treatment of a loss of cutaneous sensibility. When improvement has once commenced, recourse may be had to mild tonics, iron, salt baths and cold spongings. Exercise of the accommodation must be forbidden, and life in the open air insisted upon. The efficacy of the zinc treatment in affections of this kind was well illustrated in one of von Graefe's unpublished cases, where iron and other remedies were tried from time to time,

but to no purpose. Zinc was then given and a return to the normal condition soon secured.

Reports of Medical Societies.

SELECTIONS FROM THE RECORDS OF THE OBSTETRICAL SOCIETY OF BOSTON.

SECRETARY, J. B. TREADWELL, M.D.

JUNE 10th, 1871.—The President, Dr. Buckingham, in the chair.

Blighted Ovum.—Dr. Read read the case. Mrs. E., æt. about 20, not a very robust person, married three years; never before pregnant. Last menstruation began Feb. 25th. Began to flow slightly after taking her part in house cleaning on the A.M. of May 20th. She was ordered to go to bed, keep quiet, and have ferri sulph. and pulv. opii, with pulv. rhei; after this, she vomited freely. The medicine first ordered was discontinued, and potass. bromid. substituted. The case went on with varying reports, one day flowing a little less and the next a little more, until June 6th, when strong pains came on with an increase of the flow. The ovum came away entire on the morning of the 7th, at 2½ o'clock. It was as large as the largest lemon. On opening it, no trace of the fetus or any prominence to which the cord should have been attached was to be found. It appeared to be thicker in one spot than elsewhere, and there was no trace of a placenta. It was filled with fluid. Dr. Read remarked that he could find no account of this kind of ovum. The separate membranes could not be distinctly made out.

Dr. Damon remarked that he had seen two or three cases of this kind, and had read accounts of others.

Dr. Ellis, who was present by invitation, said that he had seen many such. Either the growth ceases very early in them, or disintegration takes place.

Labor Complicated by a Tumor in the Posterior lip of the Uterus.—Dr. C. D. Homans reported the case.

The patient, a woman, 30 or 35 years old, had been well throughout pregnancy. When called to her in labor he found the head presenting and the os open. The liquor amnii had been flowing away for thirty-six hours. A soft body was felt behind the head. The case went on slowly. On the next day, the head had progressed but little; the soft mass had descended somewhat. Either was given, the forceps

* Clinical Lectures on Amblyopia and Amaurosis, by Prof. A. von Graefe. Translated by Hasket Derby, M.D. Pp. 53.

applied, and the child was delivered alive in forty-five minutes, the tumor being pushed back as far as possible during the delivery. The tumor felt afterwards about as large as an orange. There was no hæmorrhage, and the woman did well. Dr. Homans supposed it to be a fibrous tumor.

Dr. Lyman, who was present at the delivery, said that the tumor was just below the promontory of the sacrum, at first, but afterwards slipped farther up.

Dr. Lyman asked if there had been any evidence of diminution in size of the tumor since delivery, and remarked that a tumor of the cervix which has developed rapidly during pregnancy generally diminishes after labor, as the uterus itself returns to its normal condition. Sometimes the uterine tissue covering it is bruised or lacerated during delivery to such a degree that the tumor becomes enucleated during the subsequent involution of the uterus.

Dr. Homans said there had been a marked change in the size of the tumor. It was situated in the wall of the posterior lip, and was much smaller than at the time of delivery.

Dr. Sinclair asked whether fibrous tumors are likely to be absorbed after the cessation of the menses.

Dr. Lyman thought they generally undergo no particular change, except that they are not so inclined to rapid and large growth as before. Occasionally they undergo a process of calcareous degeneration.

Erysipelas in a Puerperal Woman.—Dr. Cotting referred to the case of a puerperal woman suffering from phlegmonous erysipelas from vulva over perinæum and upward over whole back, which he had mentioned at a previous meeting. (See this JOURNAL, No. 7 of the present volume, p. 105.) A few days subsequent to the last meeting, he opened an abscess in the left labium, and made an incision ten (10) inches long, in the right back, from the crest of the ilium upwards towards the ribs, parallel to the spine, and about two inches distant from it, with another of four inches, midway and at right angle to the first; and another over the left hip nearly parallel to the first. There was some hæmorrhage, and an intensely gangrenous odor from the sloughs and pus liberated. The patient is now getting up. She has had no uterine or abdominal symptoms whatever.

Dr. Abbot queried whether there was as much danger of peritonitis in a pregnant patient actually suffering from erysipelas, as there might be in a healthy woman exposed to the influence of the latter disease.

He instanced the case of a brother practitioner, who told him that while attending a case of erysipelas requiring extensive incisions, he thoughtlessly attended a woman in confinement, who subsequently died of peritonitis, which he ascribed to the contagion of erysipelas communicated by himself.

Dr. Cotting referred to his cases of erysipelas previously reported, and said if the disease in question, i. e. erysipelas, was the source of infection to puerperal women, he did not understand why peritonitis, a different disease, and not erysipelas, the same disease, should be the result—small-pox would not give rise to measles.

Dr. Fifield thought there was a connection between erysipelas and peritonitis, but that we know very little about it; also that there is a relation between certain other diseases of the skin and those of internal organs—as between herpes circinatus and peritonitis, and herpes on the forehead and iritis, for instance. He had under his care a man, 80-years old, with sudden retention of urine. He supposed that it was due to enlarged prostate, and used catheter on three successive days, when herpes zoster, extending from the region of the kidney to the anterior median line, with insensibility of the skin, appeared, and the retention at once ceased. He had read somewhere that herpes zoster sometimes occurred in connection with diseases of the urinary organs.

Dr. Lyman thought one was not justified in attending lying-in women when he had the care of erysipelas.

Placenta Prævia. Death from Shock.—Dr. Fifield reported the following case in the practice of Dr. Stedman, of Dorchester.

At the eighth month, he was sent for to see a patient who was flowing profusely. The os was not much dilated, and he applied Barnes's dilators one after another until No. 3 was introduced, when the hæmorrhage ceased. He went home to dinner, and was summoned to find the patient pale and faint. There was no external hæmorrhage. He removed the dilator and found what appeared to be a central implantation of the placenta. He passed his hand into the uterus and found enormous clots, and a placenta centralis; got hold of the feet and delivered quickly. Stimulants were given and the patient rallied, but died at 10, P.M., from shock. He had seen women die from shock occasioned by turning, when there was no hæmorrhage.

Dr. Lyman suggested that death might have been caused in this case by embolism of the pulmonary artery.

Dr. Read stated that in all such cases reported there had been attacks of syncope.

Abortion, followed by Leucocythemia and Death.—Dr. Fifield was called to a young lady, pale and feeble, pregnant two months. She had been delivered previously without any trouble. A week before, she had flowed considerably and expelled a false conception; she did well. There was not much flowing. She took stimulants liberally. Vomiting subsequently began and persisted. A vaginal examination revealed nothing abnormal. The patient was pale, and there was blueness about the face, particularly in the labial regions. There was also a thrill in the veins of the neck. The spleen and liver were enlarged. Diagnosis, leucocythemia. The vomiting was not in any way dependent upon the uterus. Prognosis, fatal. Two weeks later, he heard that the vomiting had ceased, but there was a recurrence one week subsequently, and in three days she died.

Erysipelas after Vaccination.—Dr. Welington reported the case.

The patient was a healthy infant. On the tenth day after vaccination, erysipela-tous inflammation commenced about the vaccine pustules, and gradually extended over the arm. An abscess formed near the elbow, which discharged freely. A week after the erysipelas began, a papular eruption appeared and spread over the whole body, lasting three days. A few papulæ had minute pustules at their summits. Constitutional symptoms were moderate. The disease lasted a month.

Virus taken on the eighth (8th) day produced a successful vaccination in another child, with no bad results.

A child vaccinated with the same virus as was used in the case just described, went through the disease regularly.

Dr. Lyman asked if these cases were properly erysipelas or erythema.

Dr. Buckingham said there was vesication in some cases. Had seen abscesses after re-vaccination and death following in two cases.

Abnormal turn of Child's Head during Labor.—Dr. Abbot reported the following. In a case of labor which he had recently attended, he found a left occipito-iliac presentation (forehead to the right acetabulum). The labor progressed well for a while, and he looked for the usual turn of the head, so as to bring it into the first position (forehead to right sacro-iliac synchondrosis). But to his surprise, as it advanced the forehead turned forwards under the pubes. The pains were strong, but the

progress of the child was so slow as to call for the use of forceps, by the aid of which delivery was easily accomplished. Any attempt to reduce the head to a normal presentation in this case he thought would have wrung the child's neck. Another similar case occurred in his practice during the last summer. He waited several hours, and then with great difficulty delivered with forceps. In this case the amount of liquor amnii was small. According to authors, the turn of the child's forehead forwards instead of backward, as in the above cases, is a very rare occurrence.

Dr. Abbot, speaking of the much greater frequency with which he now used forceps than formerly, said that on consulting his notes he found that since 1857 he had employed forceps in 9.4 per cent. of his cases, excluding those of malformed pelvis and consultation cases. From 1841 to 1857 he did not use the instrument once. He had found nothing but good result from their more frequent use.

Dr. Buckingham thought he used forceps in 25 per cent. of his cases taking them as a whole.

SUFFOLK DISTRICT MEDICAL SOCIETY. REPORTED BY J. H. MC'COLLUM, M.D., BOSTON.

THE ANNUAL MEETING of the Suffolk District Medical Society was held Wednesday afternoon, April 3rd, the President, Dr. Lyman, in the chair.

On the recommendation of the Treasurer, in view of a present and prospective increase in the expenses of the Society, it was voted to make an extra assessment of one dollar upon each member, to be collected with the regular annual tax.

Dr. B. Joy Jeffries moved an amendment to the By-Laws of the Society, providing for the holding of the annual and the stated meetings in the evening of the last Saturday in March and September, respectively, instead of the present afternoon arrangement. The subject will be acted upon at a future meeting.

On motion of Dr. Calvin Ellis, it was unanimously voted not to send delegates from this society to the next annual session of the American Medical Association.

The committee appointed at the last regular monthly meeting, to take some action expressive of the sense of the society concerning the death of three of its prominent members and councillors, reported through Dr. H. W. Williams, the chairman, the following resolutions, which, with the accompanying motions, were adopted.

"Resolved, that in the death of Doctor Charles Gordon, we mourn the loss of an associate whose genial disposition, courtesy and ability, had won the attachment of his medical brethren, as well as the affection and confidence of his patients.

"The reliance reposed in his skill and his friendly sympathy, was justified and maintained by his untiring efforts, during a long career, to discharge in their full measure, all obligations of professional duty.

"Resolved, that we sympathize with the community lately deprived of one of its most esteemed members by the death of Doctor James B. Forsyth of Chelsea.

"His modesty, ability and integrity, in all the relations of life, made him an example most worthy of our respect and imitation.

"The regard and confidence with which he was honored by his fellow citizens, was amply deserved;—and he labored for their welfare with the same fidelity, as the kind, sagacious and devoted Physician, and as the unostentatious Chief Magistrate.

"Resolved, that recognizing the bereavement which this society and the community have sustained, in the death of Doctor Samuel Morrill, we desire to record our testimony to the unwearied zeal with which he devoted himself, for more than forty years, to his professional duties; finding his chief pleasure in their faithful discharge; and maintaining, every where and always, among his colleagues as well as with his patients, the reputation of a skilful, judicious and honorable Physician.

"Voted, that these Resolutions be entered upon the Records of the Society, as a tribute of respect to the memory of our departed friends.

"Voted, that the secretary send a copy of the resolutions to the respective families of the deceased."

The following named officers were elected for the ensuing year, 1872-3:—

President.—G. H. Lyman.

Vice-President.—F. Minot.

Secretary.—O. F. Wadsworth.

Treasurer.—A. B. Hall.

Librarian.—B. J. Jeffries.

Commissioner on Trials.—George Hayward.

Committee on Supervision.—George H. Gay, Samuel A. Green.

Committee on Social Meetings.—F. H. Brown, H. I. Bowditch, Calvin Stevens, G. W. Gay, F. B. Greenough.

Councillors.—S. L. Abbott, J. Ayer, H. J. Bigelow, H. I. Bowditch, B. Brown, J.

N. Borland, C. E. Buckingham, S. Cabot, Hall Curtis, P. M. Crane, G. Derby, C. Ellis, J. Flint, G. H. Gay, A. B. Hall, G. Hay, D. H. Hayden, G. Hayward, R. M. Hodges, C. D. Homans, Wm. Ingalls, J. B. S. Jackson, J. F. Jarvis, G. S. Jones, J. S. Jones, G. H. Lyman, F. Minot, W. W. Morland, C. G. Putnam, Wm. Read, J. P. Reynolds, G. C. Shattuck, A. D. Sinclair, D. H. Storer, D. McB. Thaxter, C. E. Ware, J. C. White, H. W. Williams.

Censors.—B. Joy Jeffries, J. B. Treadwell, H. F. Damon, J. Homans, A. L. Haskins.

Medical and Surgical Journal.

BOSTON: THURSDAY, APRIL 18, 1872.

THE MECHANISM OF THOUGHT.

IN a paper contributed to the Royal Medical and Chirurgical Society of London, Dr. Broadbent advances a theory of the mechanism of thought, founded partly on his own researches into the structure of the brain, and partly on the phenomena observed in cases of so-called aphasia; and his views may thus be briefly stated:—In regard to structure, he believes his dissections demonstrate that the radiating fibres issuing from the central ganglia are chiefly, if not exclusively, distributed to the convolutions forming the margin of the great longitudinal fissure and those forming the margin of the fissure of Sylvius, and the parts adjacent both in front and behind; that the fibres of the corpus callosum are distributed to these same convolutions; that there are convolutions, as those on the under surface of the temporo-sphenoid and orbital lobes, island of Reil, and others on the convex surface, which have no direct connection with either crus, central ganglia or corpus callosum; and, lastly, that there are fibres connecting different parts of the cortical grey substance. His theory in regard to the functional activity of these parts is based on that suggested by Dr. Bastian, and may thus be shortly given:—Ideas or thoughts—the act of thinking—are the function of the highest centres, occupying those parts of the cerebral hemisphere which are thus

withdrawn from the outer world; when such thoughts or ideas are required to be translated into language, impulses are transmitted through communicating medullary fibres to the third left frontal convolution, where they are formulated into speech, the words being selected that are adapted for the expression of the idea or phrase. But for the articulation of any given word, many muscular groups must be called into play—as those of the chest, larynx, tongue and lips. The coördination of muscles for this purpose is effected by the corpus striatum, in which certain groups of cells representing certain sounds or words exist. The business of the third left frontal convolution is to call into play the right cell groups in the corpus striatum, which shall transmit to the nerve nuclei in the medulla and cord the impulses requisite for the utterance of the words that it has itself selected as most appropriate for the expression of the idea existing in the supreme centres.

It is obvious that this theory enables an explanation of many pathological phenomena. Dr. Broadbent, following Dr. Bastian, holds that there may be either paralysis or merely a want of coördinating power in each of these centres. In the case of the supreme centres, for instance, the lesion may be so serious as to lead to utter loss of the memory of ideas and of words as intellectual symbols, and the patient is then said to be amnesic; or there may be only a want of coördinating—a failure in the capability of selecting the words or phrases required to express a given idea. But the supreme centres may be undisturbed and free from disease, as shown by the retention of memory, and by the power of expressing ideas by some other mode, as by writing, and yet there may be loss or impairment of speech. In such case, the third left frontal convolution is diseased. And here, again, the lesion may be so severe as to abolish its function of selecting words or phrases appropriate to the idea desired to be expressed, and thus produce aphasia; or its coördinating powers may alone be affected, and the impulses it sends down to the corpus striatum may be directed through wrong channels, exciting wrong cell groups, and giving rise to the use of inappropriate

words. In cases where the corpus striatum or the motor ganglia in the medulla are affected, aphasia is not present, but there is impairment of articulation. Thus in these several instances we obtain a key to what otherwise are very puzzling groups of symptoms.

BRAUN'S OPERATION FOR THE RADICAL CURE OF PROLAPSUS UTERUS.—Dr. Paul Munde, of Stuttgart, a graduate of Harvard Medical School, and more recently assistant to Prof. Scanzoni, contributes to the last number (November) of the *Amer. Jour. of Obstetrics* a description in detail of the operation for the permanent relief of prolapsed uterus, as practised by Braun, of Vienna, since 1859, and cites four successful cases. The operation consists in removing a piece of the vaginal portion of the uterus by means of a scalpel, the section being made below a constricting loop of wire passed around the cervix to prevent hæmorrhage; secondly, in uniting the anterior and posterior lips of this wound with sutures similar to catgut; and, thirdly, in removing from the anterior and the posterior aspect of the tumor a portion of the mucous membrane caught up by the forceps and tenacula, leaving an elliptical shaped wound, whose lips are to be brought together as in the first instance. The womb is then restored to its normal relation in the pelvis, and the patient put to bed, with a vaginal tampon of cotton saturated with glycerine.

The recovery is generally unattended by pain or discomfort. At about the fourteenth day the sutures are removed, unless pain or a fetid vaginal discharge make it necessary before. The patient is able to walk about after a month or six weeks, but a rubber lever pessary is advised to be worn for several months, at the end of which interval the uterus will be found to have resumed its natural condition and position.

THE CÆSAREAN SECTION IN THE UNITED STATES. The *American Journal of Obstetrics* for November 1871, contains a table of all the recorded cases of the Cæsarean operation in this country, with valuable comments thereon, contributed by Dr. R. P. Harris,

of Philadelphia. The table presents statistics of fifty-nine operations, embracing a period since 1822, and showing a ratio of maternal recoveries amounting to fifty-two per cent. It is curious to observe that Louisiana contributes nearly one-seventh of the whole number of cases.

The first recorded case in the United States, is that of a girl of fourteen years living in Nassau, N. Y., who opened her own abdomen and recovered from the effects of her ignorant boldness.

Dr. Harris proposes the term, gastro-hysterotomy, in preference to Cæsarean section, as possessing the advantage of greater definiteness. He believes the operation promises a better prognosis than ovariectomy if care be taken to observe ordinary precautions; and he thinks better results are possible from abdominal section in cases of ruptured uterus, than are shown by the ordinary method of delivery *per vias naturales*. The disposition to delay the operation explains much of the want of success, and the necessity for the early determination of the obstacles to natural labor, indicating this or some similar method of relief, and for the prompt performance of the section, once the diagnosis is made, is emphatically insisted on. Many other valuable points of information, including the general statistics of other countries, the condition demanding the operation and the method of its performance are comprised in this highly instructive paper.

THE PHILADELPHIA BOGUS DIPLOMA BUSINESS has received a well-directed blow in the annulling, by the Legislature of Pennsylvania, of the charters of the "Eclectic College of Pennsylvania" and of the "American College" (better known as the "Philadelphia University of Medicine"). Both these institutions had become notorious at home and abroad as dispensers of degrees *in absentia*, and no doubt the illicit and disgraceful traffic in bogus diplomas has been the source of considerable profit. It is creditable to the medical profession in Philadelphia that this action of the State Legislature is largely due to the earnest and continued endeavors of the

Faculties of the regular schools to expose the workings of these infamous establishments.

FIRST ANNUAL REPORT OF THE DISPENSARY FOR SKIN DISEASES, PHILADELPHIA.—We have received from Dr. Duhring, the eminent dermatologist of Philadelphia, the first report of the Dispensary recently organized in that city. The cities of the Old World have long made diseases of the skin the subject of special study. Blackfriars' Hospital for diseases of the skin alone receives and treats annually an average of ten thousand cases. In Paris, the great hospital St. Louis has six hundred beds for patients of this class, while the dispensary service attached to the hospital prescribes daily for at least one hundred and fifty patients. Vienna, Glasgow, Belfast and other places in the Old World, and New York, Philadelphia, and, we are glad to say, Boston now, all possess hospitals or dispensaries for the treatment and study of cutaneous diseases.

In the Philadelphia Dispensary, 425 patients have been treated in the year just closed, and the percentage of cases cured or relieved speaks well for their professional attendants. We trust that the call made on the benevolent public of Philadelphia for the support of so worthy an institution will be abundantly answered.

THE BATH IN SMALLPOX.—In some notes on the treatment of smallpox, in the *Dublin Journal of Medical Science* for January, Dr. Stokes, Regius Professor of Physic in the University of Dublin, lays great stress upon the use of the warm bath. He says: "We cannot doubt that the mortality in smallpox hospitals would be greatly diminished by the use of the bath." He describes a case in which the pustulation was almost universally confluent; the purulent matter highly putrescent; the hemorrhagic state developed; the body one universal ulcerous sore, and the blackness of the worst purpura developed; the odor of an intensely pungent and offensive character, which seemed to pass through the bystander like a sword. "Stimulants alone, freely and constantly employed, seemed to preserve the patient alive. The pulse was rapid, weak, and intermitting; and for several days we despaired of his life. At

this juncture I happened to describe the case to my colleague, Mr. Smyly, who suggested the trial of the warm bath, with the view of relieving the terrible suffering. A bath in which he could recline was speedily procured; and, pillows being adjusted in it, we lifted the sufferer in, and placed him in the recumbent position. The effect was instantaneous and marvellous. The delirium ceased as if by magic; it was the delirium of pain, and the patient exclaimed, 'Thank God! thank God! I am in Heaven! I am in Heaven! Why didn't you do this before?' The fever immediately and completely disappeared, so that, on entering the ward, no one could suppose that there was a case of smallpox in it. He was kept at least seven hours in the bath, during which time brandy was freely administered, and omitted only when it showed symptoms of its disagreeing with the brain. He was then removed to bed. The surface was clean, and in many places the sores looked healthy and white. The bath was repeated next day, after which he fell, for the first time, into a tranquil slumber. From this time his recovery was progressive, delayed only by the formation of abscesses and the great soreness of the feet. That this gentleman's life would have been sacrificed but for the timely use of the bath, few who have had any experience in prognosis can reasonably doubt. He was in the condition of a patient every portion of whose skin had been burnt and ulcerated. * * * This case and its singular result, in addition to the experience of Hebra, justifies the recommendation of the use of the bath. No danger attends its employment; and, in asthenic cases, stimulants can be freely used. In the Vienna Hospital, patients have been kept continuously in the bath for one hundred hours with good effect."—*British Medical Journal*.

In an article in the last number of the *Gazette Hebdomadaire*, M. Vienne gives an interesting account of the "Isolating Dressing of Wounds" as pursued by M. Ollier, of Lyons. He observes that among the various modes of effecting this manner of dressing of late years, that of Lister has excited most attention; but his is so long and complicated that the omission of some detail may easily prevent its succeeding. For this reason M. Ollier has, during the last two years, treated wounds by means of oil-baths; and, where these could not be applied, by keeping the wound and the limb surrounded by dressings constantly

soaked in oil—in fact, a continuous oily irrigation. For the continuous water-baths employed by Langenbeck, Valette, and others, M. Ollier believes that oil constitutes a preferable material, as, being lighter than the fluid products of the wound, all putrefied or putrescent matters sink through it to the bottom of the vessel. They no longer remain in contact with the wound, and by traversing a carbolized layer of the oil become disinfected and innocuous during their passage. However abundant such products are, they are removed from the wound by means of the oil, which also forms an efficient protection against the access of the air to the wound. Moreover, the oil is not like water—absorbable by the wound—and thus isolates it without furnishing it with any septic elements. It is sufficiently transparent to render it unnecessary to remove the limb from the bath in order to watch the progress of the wound. The oil may be rendered antiseptic by adding about 50 per cent. of phenic acid. After trying various forms of apparatus, M. Ollier now uses zinc vessels approaching in shape to the limbs which are to be immersed in them during the period of treatment. For amputations of the arm or leg, he employs a yet simpler plan, taking a pig's bladder of sufficient capacity to embrace the stump, and, having filled it with oil, fixing it above the knee or above the shoulder, as the case may be. The stump is thus kept in a continuous bath of oil, which furnishes it with a soft cushion, and may require renewal every three or four days, according to whether the adjustment becomes disturbed or not. When the bath cannot be applied, a layer first of charpie and then of wadding is wound round the limb, and thoroughly saturated with oil, which is also kept frequently, or even continuously, applied.—*London Med. Times and Gazette*.

THE LOCAL TREATMENT OF HYPERTROPHIED TONSILS.—Dr. B. Frankel read before the Berlin Medical Association (*Wiener Medizinische Presse*, February 11, 1872) an interesting communication on this subject. He said that in cases in which, from any cause, it was inexpedient to remove the tonsils by the knife, we must have recourse to one of two classes of remedies. 1. Caustics. Of these, he agrees with Prof. Lewin in preferring chromic acid. This should be applied in fine crystals (*Nadeln*) directly to the tonsils. Its application gives rise to little or no pain, is without danger, and produces

a considerable reduction in the size of the glands. If great care is not taken, the surface of the tonsils will, however, acquire a lobulated appearance, inasmuch as those parts which have not been reached by the caustic will be unchanged and appear as ridges among the shrivelled portions. Dr. Frankel has, consequently, recourse to—2. Sorbefacients. He has found but little effect produced either by the application of the tincture of iodine by means of a camel's-hair brush directly to the part, or by the use of a solution of iodide of potassium and the atomizer, and therefore recommends that the iodine should be brought immediately in contact with the hyperplastic tissue. To this end he has made use of submucous injection of iodine, which he has never found to fail in appropriate cases. He prefers the solution of iodine in glycerine, as the alcohol in the tincture has a tendency to dissolve the cement with which the glass point of the syringe is fastened to the caoutchouc cylinder. The injection should be made in the following way: The tongue of the patient is to be depressed with a spatula, which should be held in the left hand of the operator, while with the right hand he introduces the point of the syringe into the tissue of the tonsil. So much of the contents of the syringe are then to be injected as may seem desirable. No pain is caused during the injection or afterwards, unless the instrument has penetrated into the surrounding muscular tissue. There is generally little or no hæmorrhage. Care should be taken that the point of the syringe does not enter one of the numerous crypts of the tonsils. This may be known to have taken place whenever the iodine-solution is seen flowing out of the mouth of such a follicle. The injection may be repeated at the end of eight days.

A marked diminution in the size of the tonsil will frequently be observed after the first operation; but to arrive at definite results—i.e. to reduce the gland to the third or the fourth of its original size—it is sometimes necessary to repeat it from twenty to thirty times.

In some cases he also recommends the introduction of small pencils of iodine and iodide of potassium, made up with dextrin, into the mouths of the follicles of the tonsils.

In the discussion which followed the reading of this paper, Prof. Lewin spoke of the great relief afforded by the submucous injection of morphia in acute tonsillitis. The pain is at once relieved by it, and deglutition becomes possible.—*Phil. Medical Times*.

TREATMENT OF TERTIARY SYPHILIS.—Dr. M. H. Henry thus refers to the use of iodide of potassium in the tertiary stage of syphilis:—

"To derive the full benefit of the iodide where there is a large amount of gummy deposit, or any of the inveterate and intractable forms of the disease in the tertiary period, it must be given in large doses—indeed, I scarcely know the limit. Little fear need be entertained about producing iodism. I have never seen it in a person suffering from tertiary syphilis. In one case the patient took three hundred grains daily for more than eight weeks, and with the disappearance of the syphilitic symptoms, he gained steadily in his general health and in flesh. To obtain the best results in the use of the iodide, it should be taken thoroughly diluted—each dose in a small glass of water. If there is any nausea, a little compound tincture of bark, or an infusion of columbo, may be added. The drug is more readily and perfectly absorbed when taken in this way than when taken with only a small quantity of fluid."—*The American Journal of Syphilography and Dermatology*.

THE FORCE OF UTERINE CONTRACTION.—The extreme force of uterine contraction produces a pressure of 3,402 pounds per square inch, which is equivalent to a pressure of 54,106 pounds acting upon a circle of nine and a half inches in diameter, which is assumed as the average area of the pelvic canal. The maximum force used to expel the fetus, by both uterine and abdominal muscles combined, is estimated by Soulin, by forceps experiments made on a dead body, at 110.23 pounds, a result which is regarded by Dr. Duncan as too large. Dr. Duncan considers 80 pounds as the maximum force ever employed in difficult cases. This would correspond with a hydrostatic pressure inside the uterus of 5.05 pounds per square inch, which is greater than the uterine muscles, unaided, are capable of producing.—*Dublin Quarterly Journal Medical Sciences*.

ANTIDOTE TO CARBOLIC ACID.—Dr. T. Hasemann, from numerous careful experiments, both chemical and medicinal, advocates the use of a strong solution of saccharate of lime, of course to be taken as soon as possible, as an antidote to carbolic acid.—*Medical News and Library*.

Medical Miscellany.

ALCOHOL AS A MEDICINE.—In view of the difficulty experienced in procuring pure alcoholic liquors and for the purpose of studying the essential effects of alcohol administered medicinally, Dr. Samuel Wilks, of Guy's Hospital, has prescribed what he calls "mistura alcoholica," composed of rectified spirit, tincture of cardamoms and water. This mixture fulfils the indications for alcoholic stimulation in many cases of wasting diseases, and the results of its use in children especially have been very encouraging.

TRAINED MIDWIVES.—The Obstetrical Society of London has undertaken to correct some of the abuses growing out of the ignorance of midwives by giving licenses to those who, upon examination, prove themselves capable to undertake certain cases of labor and who furnish evidence of having had a sufficient term of elementary study.

THE WALLS OF HOSPITAL WARDS.—In view of the necessity of providing the walls of hospital wards with some material impermeable to fluids and gases, the source of gangrene, erysipelas and other contagious diseases, the best London hospitals of late construction made use of parian. This substance, expensive as it is, appears to be open to other criticism as not fulfilling the purpose intended, and it is proposed to supplant it with ordinary paint and varnish in thickly applied layers.

TURPENTINE IN PERITONITIS.—At a recent meeting of the Paris Hospital Medical Society, M. Vidal called attention to the great value of turpentine as an external application in partial and general and even in puerperal peritonitis. Trousseau employed the same remedy in large doses internally. M. Vidal soaks a piece of flannel in the turpentine and applies it to the abdomen, covering it with oiled silk; it remains on until vesication results at several points, when the silk is removed to allow the evaporation of the turpentine. A portion of the agent is believed to be absorbed. Ice and in certain cases, also, leeches are used. Under this treatment, M. Vidal had seen many cases recover, in which the patient was reduced to the last extremity.

BABY FARMS.—The existence of a "baby-farm" was discovered a few days ago in Mar-seilles by a novel species of detection. A mastiff was seen carrying the arm of a newly-born infant in his mouth, and his movements being watched, led to the arrest of a woman who confesses to have exercised this calling for thirty years.

FUNCTION OF THE ANTERIOR PART OF THE BRAIN.—Prof. Schiff, of Florence (*Lancet*, Oct. 21, 1871), is said to have confirmed the announcement that the anterior portion of the brain has to do with motion; but he has found that the muscular movements do not arise from an actual motor property of the brain, but are reflex movements excited by irritation of certain parts of the cerebrum which regulate tactile sensibility (not sensi-

tiveness to pain). The removal of such parts does not directly abolish the movements, but disturbs them indirectly through the destruction of tactile sensibility.—*N. Y. Med. Jour.*

EIGHT thousand deaths from smallpox occurred in London last year, while the average of the preceding thirty-one years was only six hundred.—*Phil. Med. and Surg. Reporter.*

TO CORRESPONDENTS.—Communications accepted.—Vaccination without Scar; Scar not a Test of Thoroughness or Immunity.—Two Cases of Compound Fracture of the Leg.—Mortality Statistics of the Learned Professions.—Cases of Fractured Cranium.

BOOKS RECEIVED.—How the World was Peopled. Ethnological Lectures by Rev. Edward Fontaine. New York: D. Appleton & Co. 1872. Pp. 341. (From A. Williams & Co.)—The Popular Science Monthly, conducted by E. L. Youmans. No. 1. New York: D. Appleton & Co. 1872. Pp. 128.—The Urine and its Derangements. By George Harley, M.D., F.R.S. Philadelphia: Lindsay & Blakiston. 1872. Pp. 334. (From James Campbell.)

MARRIED.—In this city, 12th inst., Wm. H. Ruddick, M.D., to Miss S. Ada Means, both of this city.—In Hartford, Conn., April 11th, Dr. Francis M. Weld, of New York, to Miss Fannie E. Bartholomew, of H.

Deaths in seventeen Cities and Towns of Massachusetts for the week ending April 13, 1872.

Cities and Towns.	No. of Deaths.	Prevalent Diseases.
Boston	149	Pneumonia 46
Charlestown	5	Consumption 41
Worcester	35	Scarlet fever 23
Lowell	17	Erysipelas 7
Milford	7	Croup and Diphtheria 7
Chelsea	4	Typhoid Fever 5
Cambridge	4	Measles 4
Salem	17	
Lawrence	15	
Springfield	5	
Lynn	9	
Gloucester	7	
Fitchburg	4	
Newburyport	6	
Somerville	5	
Fall River	17	
Haverhill	3	
	322	

There were five deaths from smallpox; four in Boston and one in Fitchburg.

GEORGE DREY, M.D.,
Secretary of State Board of Health.

DEATHS IN BOSTON for the week ending Saturday, April 13th, 149. Males, 76; females, 73. Accident, 4— inflammation of the bowels, 2—disease of the bowels, 1—burned, 1—bronchitis, 5—inflammation of the brain, 1—congestion of the brain, 2—disease of the brain, 6—cyanotic tonsillitis, 1—cancer, 4—caries of bones of foot, 1—cyanosis, 2—consumption, 17—convulsions, 1—croup, 2—debility, 2—diarrhoea, 1—dropsy, 1—dropsy of the brain, 3—drowned, 1—diphtheria, 1—epilepsy, 1—erysipelas, 5—scarlet fever, 8—typhoid fever, 1—gastritis, 5—disease of the heart, 7—insanity, 1—intemperance, 2—disease of the kidneys, 3—disease of the liver, 2—congestion of the lungs, 2—inflammation of the lungs, 17—marasmus, 7—measles, 1—old age, 8—paralysis, 1—pleurisy, 1—premature birth, 5—peritonitis, 1—purpura, 1—puerperal disease, 3—scalded, 2—suicide, 1—smallpox, 4—disease of the stomach, 1—ulceration of the stomach, 1—unknown, 6.

Under 5 years of age, 54—between 5 and 20 years, 12—between 20 and 40 years, 29—between 40 and 60 years, 25—above 60 years, 29. Born in the United States, 108—Ireland, 27—other places, 14.